

COMPRESSED AIR MAGAZINE

PUBLISHED BY

The Compressed Air Magazine Company

New York, London, Paris



General Editorial and Business Offices:

No. 11 Broadway, New York

INDEX TO VOLUME XXVIII

JANUARY TO DECEMBER, 1923

(Copyright, 1923, by Compressed Air Magazine Co.)

COMPRESSED AIR MAGAZINE

INDEX TO VOLUME XXVIII

JANUARY-DECEMBER, 1923

* Article Illustrated

A

Abrasives, Metallic, Pneumatic Retrieving of.....	566
Accidents, Preventable.....	406
Accidents Under Abnormal Air Pressures—By Robert W. Jones.....	396
*Aerial Lighthouse Aids Night Flying.....	523
Aerial Navigation (Editorial).....	634
Aeroplanes, Canada Makes Novel Use of.....	730
African Railway Projects.....	385
Air Brake for Fire Fighting Apparatus.....	464
*Air Brakes on an Eight-Wheel Truck.....	404
Air Brakes, Superiority of (Editorial).....	663
*Air Compressor Intakes, Silencing the—By Hiram Percy Maxim.....	411
*Air Drills and Hammers Tested by Special Device.....	560
Air Drills Make Record at Shawinigan Falls.....	699
Air Lift—and Air Lifts (Editorial).....	394
*Air-Lift System in Winnipeg Industries—By S. J. Mathewson, Jr.....	685
*Air-Lift System Installed at Allenhurst, New Jersey—By S. G. Roberts.....	397
Air-Lock for Freight Car Doors.....	566
Air Preheaters, Success of.....	432
Alunite and Henry Ford (Editorial).....	485
America and the Atlantic—By Vice-Admiral G. A. Ballard (Book Review).....	636
American Machinist Gear Book (Book Review)—By Charles H. Logue.....	456
American Petroleum Refining—By H. S. Bell (Book Review).....	546
America's Economic Status, Facts and Figures On (Editorial).....	545
Anhydrous Ammonia, Evaluating Properties of.....	579
Annual Report on the Smithsonian Institute—By the Government Printing Office (Book Review).....	636
Applied Business Finance—By Edmond Earle Lincoln (Book Review).....	486
*Aquarium, New York—By Robert G. Skerrett.....	529
*Aquatic Life, Compressed Air Safeguards—By Robert G. Skerrett.....	529
Argonaut Disaster, An Echo of the.....	391
*Arrowrock Dam, Patching by Means of Compressed Air—By S. R. Winters.....	511
Arsenic, Production of.....	697
Artesian Wells to Make a Desert Productive.....	616
Artesian Wells, Water Power from.....	566
Artificial Wood—Another Imitation.....	633
*Asbestos, Canada's Great Industry—Part I—By Norman R. Fisher.....	679
*Asbestos, Canada's Great Industry, Part II—By Norman R. Fisher.....	711
Asphalt, Varieties of.....	638
Atlantic, Linking Our Inland Seas with (Editorial).....	604
Atlantic-Pacific Shipway Across South America (Editorial).....	484
Atomizer, Recovering Valuable Powders by the.....	456
*Australia's Silver, Lead and Zinc Mines—Part I—By H. H. Carroll and P. H. Warren.....	561
*Australia's Silver, Lead and Zinc Mines—Part II—By H. H. Carroll and P. H. Warren.....	601
Automatic Train Control Makes Good (Editorial).....	635
Automobile and Railroad Passenger Service.....	425
Automobile, Heavy Oil for.....	478
Aztec a National Monument.....	467

B

Bakery, Cool Air in the.....	432
Bankers Banquet at Hotel Astor (Editorial).....	486
Barometer, Aneroid, for Indicating Altitudes.....	523
Basic Commodities, Comparative Prices of (Editorial).....	576
*Baumberger, Charles—Making a Success of it in the Cement Industry.....	656

*Beach, Howard W.—Paint Versus Cost of Painting.....	620
Beetle, the Little Pest.....	661
Bell, a Great Modern.....	628
Bessemer History (Editorial).....	635
Bethlehem Mayari Pig Iron—By Bethlehem Steel Co. (Book Review).....	729
*Big Creek Hydro-Electric Project—Part II—By D. H. Redinger.....	720
Bituminous Coal Storage.....	462
Bituminous Paint, Colored.....	406
*Blackwell, Frank—Drill Steel and the Drill Steel Sharpener—Part I.....	418
*Blackwell, Frank—Drill Steel and the Drill Steel Sharpener—Part II.....	437
*Blackwell, Frank—Drill Steel and the Drill Steel Sharpener—Part III.....	469
*Blackwell, Frank—Drill Steel and the Drill Steel Sharpener—Part IV.....	503
Bluebook of Southern Progress—By Manufacturers' Record (Pamphlet).....	701
Boiler Riveters, Latest in—.....	483
Boll Weevil and Its Ravages.....	474
Book of Business Etiquette, A (Book Review) (Anonymous).....	456
*Boring Machine Chucks Worked by Compressed Air.....	375
*Bowman, A. A.—Electrical Energy from the Saguenay River.....	687
*Brainerd, H. S.—Tempering of Drill Steel.....	374
Brakes on an Air-Brake Inventors (Editorial).....	606
Brewery, Compressed Air in the.....	381
*Briggs, Roland H.—Compressed Air in North Wales Limestone Quarries.....	390
*Briggs, Roland H.—Kent Coal Fields are England's Newest Source of Fuel.....	507
*Briggs, Roland H.—Thousand-Year-Old Mine Still being Worked.....	479
*Broad Street Station, Philadelphia, Fire at—By Richard H. Tingley.....	725
*Broken Hill Mines in Australia, The Great—Part I—By H. H. Carroll and P. H. Warren.....	561
*Broken Hill Mines in Australia, The Great—Part II—By H. H. Carroll and P. H. Warren.....	601
Bubbles, Constant.....	456
Buffalos, in Thousands, to be Slaughtered.....	676
*Building Rock, Testing the Durability of—By G. H. Dacy.....	565
Business World, What's Going On in the (Editorial).....	515

C

*Caissons of the Delaware River Bridge—By J. Hanley Wilkers and A. S. Taylor.....	386
*Caissons, Rectangular and Circular, of Delaware River Bridge—By S. G. Roberts.....	557
*Caissons Sunk for Vehicular Tunnel—By S. G. Roberts.....	376
Canada and Her Resources (Editorial).....	700
Canada Enjoying General Prosperity.....	673
Canada Makes Novel Use of Aeroplanes.....	730
Canada's Coal Trade.....	684
*Canada's Great Asbestos Industry—Part I—By Norman R. Fisher.....	671
*Canada's Great Asbestos Industry—Part II—By Norman R. Fisher.....	711
*Canada's Paper-Making Industry One of Increasing Importance—By S. G. Roberts.....	667
Canada's Railroads, How to Make them pay (Editorial).....	700
Cantaloupes, Precooling, Before Shipment.....	638
Carbon Dioxide Retards Butter Deterioration.....	654
Carbonic Acid to the Good.....	628
Carbon Monoxide in Tobacco Smoke.....	714
*Carroll, H. H.—Great Broken Hill Mines in Australia, The—Part I—By H. H. Carroll and P. H. Warren.....	561
*Carroll, H. H.—Great Broken Hill Mines in Australia, The—Part II.....	601

*Castleton Bridge of N. Y. Central Railroad—By Sidney Mornington.....	401
*Catapult to Revolutionize the World—By S. G. Roberts.....	445
*Cement Gun Employed for Novel Purpose.....	413
*Cement Gun Used on 52-Mile Canal—By S. R. Winters.....	405
*Cement Industry, Compressed Air in the—By G. S. Eaton.....	500
*Cement Industry, Growth of.....	421
*Cement Industry, Making a Success of the—By Charles Baumberger.....	657
Channel Tunnel Plans.....	665
*Chapman, Cloyd M.—Compressed Air in Sulphur Mining.....	645
Charlton, D. E. A. (Poem) 'What Can I Do For ee?.....	664
*Chicago, Good Roads Show in.....	431
Coal Distillation, Important Step in (Editorial).....	604
Coal Production In America, High Efficiency of (Editorial).....	393
Cold Storage, Ocean Going (Editorial).....	515
*Cold Storage Service in a Modern Municipal Market—By Sidney Mornington.....	433
College-Trained Men, More Openings for (Editorial).....	728
Commodity Prices, Fall of (Editorial).....	663
*Compressed Air and Concrete Save Old English Cathedrals—By Francis J. Tietzort.....	533
Compressed Air Safeguards the Mariner—By A. M. Hoffman.....	567
Compressed Air to Operate Locomotives.....	400
Cook, F. W. (Obituary).....	701
*Concrete and Compressed Air Save Old English Cathedral—By Francis J. Tietzort.....	533
Concrete Railway Ties.....	724
Concrete, Scientific Mixing of (Editorial).....	454
Concrete, Shooting, 4,000 feet by air.....	633
*Confederate Memorial on the Face of Stone Mountain—By Vernon H. VanDiver.....	651
Confidence (Editorial).....	455
Congressional Report with a Meaning, A (Editorial).....	604
<i>Control of Quality in Manufacturing, The</i> —By G. S. Radford (Book Review).....	424
Copper Consumption on the Increase (Editorial).....	634
Copper Development in Canada.....	385
Copper from Mine Water.....	417
Copper Pipe, Ancient.....	462
*Copper, 8,000-Foot Tunnel Driven to Speed up Production—By W. R. Lindsay.....	527
Copper Used as a Rope Preservative.....	628
Copper Versus Gold (Editorial).....	514
Cotton Production and Consumption.....	381
Country, A Progressive.....	627
*Crystals for the Crystal Gazer.....	532
Cuyas, John (Obituary).....	676
<i>Cycles of Unemployment in the United States</i> —By Wm. A. Berridge (Book Review).....	701

D

*Dacy, G. H.—Taking the Blur Out of Speedy Motion.....	488
*Dacy, G. H.—Testing the Durability of Building Rock by Man-Made Weather.....	565
*Dam, Arrowrock, Patching by Means of Compressed Air—By S. R. Winters.....	511
*Dam, Keokuk—By Robert G. Skerrett.....	367
Dams Protected Against Ice by Compressed Air (Editorial).....	634
*Davis Bridge Project a Monumental Undertaking—By Robert G. Skerrett.....	639
Deep Mining, Cost of.....	450
*Deerfield River to Produce 60,000 Horse Power—By Robert G. Skerrett.....	639
*De Forest, Lee—Pencils of Light and Photographic Films Give Talking Pictures.....	595
*Delaware River Bridge, Anchorage Foundations For—By S. G. Roberts.....	557
*Delaware River Bridge, Status of Work on—By J. Hanley Wilkers and A. S. Taylor.....	386
Dencer, F. A.—Pneumatic Tools Hasten Building of Electric Transmission Line.....	497
*Denmark's Industry and Trade.....	382
*Diamond Industry, The—By Richard Hoadley Tingley.....	459
Diamonds from Arkansas.....	661
<i>Dictionary, How to Use the</i> —By Martin C. Flaherty. (Book Review).....	546
*Dinosaurs and Other Strange Creatures of the Distant Past—By A. S. Taylor.....	674
Disaster, Why Invite (Editorial).....	578
<i>Discoveries and Inventions of the Twentieth Century</i> —By Edward Cressy (Book Review).....	578
*Distilled-Water Ice Plant, Modernizing the—By Robert G. Skerrett.....	407
*Draney, John, and the Locomotive of the Lackawanna Railroad.....	626
*Driair" Supplements the Aftercooler.....	424

*Drilling Contest at Arizona.....	650
*Drill Sharpening.....	666
*Drill Steel and the Drill Steel Sharpener—Part I—By Frank Blackwell.....	418
*Drill Steel and the Drill Steel Sharpener—Part II—By Frank Blackwell.....	437
*Drill Steel and the Drill Steel Sharpener—Part III—By Frank Blackwell.....	469
*Drill Steel and the Drill Steel Sharpener—Part IV—By Frank Blackwell.....	503
Drill Steel, Proper Handling of (Editorial).....	392
*Drill Steel, Tempering of—By H. S. Brainerd.....	374
Dry Dock, Floating.....	457
*Duralumin Makes it Possible to Construct Airship Girders.....	638
*Dust Explosion at the Chicago & Northwestern Elevator—By Sidney Mornington.....	539
Dust Problems and Their Solutions. (Pamphlet) Review.....	664
Dynamiting Rock.....	421

E

Earthquake Makes Its Toll (Editorial).....	663
Earth Rotates Upon Its Axis, The.....	627
*Eaton, G. S.—Compressed Air in the Portland Cement Industry.....	500
<i>Economics of Marketing and Advertising, The</i> —By W. D. Moriarty (Book Review).....	636
*Edwards, Edward A.—Oil-Engine-Driven Towboat "Hustler".....	715
Efficient Service in the Field.....	655
Electrical Immunity.....	727
<i>Electricity in Agriculture</i> —By Arthur H. Allen (Book Review).....	486
*Electrification of Java's Railways Well Under Way—By Richard H. Tingley.....	535
Electric Power, Nation-Wide Use of.....	603
*Electric Towel.....	543
Electric Train Self-Contained.....	560
*Electro-Pneumatic Signal System at Interborough Rapid Transit Company's Plant—By R. H. Tingley.....	489
*Elmhurst Municipal Water Supply—By C. W. Melcher.....	587
Engine, An Inverted.....	606
Engineer a Factor in Promoting World Peace (Editorial).....	392
Engineer, Who Next an (Poetry).....	578
*Engineering Society Banquet at Scranton.....	443
<i>English Manual for Business</i> —By Robert Winternitz (Book Review).....	664
*Equitable Life Insurance Co's. New Building—By Frank W. Skinner.....	451
*Europe Far from Promising, The Economic Outlook In.....	382
*Evans, H. G.—St. John Seeking Preeminence as a Winter Port.....	677
*Evaporated Fruits Fast Displacing the Sun-Dried Product—By Norman Lombard.....	615
<i>Explosion of Air Compressors. (Pamphlet) Review.....</i>	664
Eyesight, Urgent Need of Conserving.....	430

F

Federal Reserve Bank's Figures on Shortage of Labor (Editorial).....	635
Fish.....	606
"Fish Scaling" Engages Ceramists.....	616
Financial Interest in Canada (Editorial).....	700
*Fisher, Norman R.—Canada's Great Asbestos Industry—Part I.....	679
*Fisher, Norman R.—Canada's Great Asbestos Industry—Part II.....	711
*Flume Built in Mountainous Region—By S. R. Winters.....	405
Flying Machine, New.....	666
*Foote-Burt Company Novel Adaptation of Air Drills.....	375
Foreign Trade, Our Favorable Position in (Editorial).....	728
*Forest Exhibit Invites Vacationist.....	570
*Foundry, Growing Importance of Compressed Air in the—By Robert G. Skerrett.....	703
*Fuel and Potash from Molasses.....	548
Fuel from Lignite (Editorial).....	663
Fuel Supply, A New (Editorial).....	514
<i>Fundamentals of Rectification</i> —By C. C. Van Nuys (Book Review).....	546
*Furman Rivet Gun—By Robert G. Skerrett.....	512
Fur Farming in Canada.....	676

G

*Garnet Quarry, The World's Greatest—By Robert G. Skerrett.....	581
Gas, Easy to Waste.....	594
*Gaseous Ores, Mined from the Atmosphere—By Wilkinson Stark.....	519

*Gas Main, High-Pressure, Laying A—By C. W. Melcher	463
Gasoline from Coal	464
*Gasoline Shovel Makes Good, The	665
Gas, Safer Illuminating	628
Geysers	478
Glacial History (Editorial)	605
Glasgow's Population	636
Glue, Water-Resisting	724
*Gold and Silver—By N. S. Greensfelder	414
Gold Mine, An Ideal	702
Good Roads in China, Move for (Editorial)	423
*Good Roads Show in Chicago	431
Good Roads Show in Chicago, The	374
Granite Quarries, Compressed Air in Cornish	413
*Granite Quarrying and Crushing Operation, a Large—By T. I. Weston	379
Grant, P. H.—Mounting Locomotive and Car Wheels	547
*Greensfelder, N. S.—What Gold and Silver Mean to Man	414
Greensand Marks of New Jersey rich in potash	472
*Grinder, Automatic, Uses Compressed Air	444
*Gunite Applied with Cement Gun—By S. R. Winters	405
Gunite in Coal Mines	496
*Gunite, Pushing along Big Power Project	586
*Gunite Stops Leaks in a Water-Supply Reservoir—By Ivan E. Houk	555

H

*Hanna Engineering Works' Latest Riveting Machine	483
*Hanna Pneumatic Toggle and Lever Press	396
Helicopter Flight (Editorial)	663
*Hickey, John (Obituary)	506
High Bridge, Save (Editorial)	515
*High-Pressure Gas Main Installed at Chicago—By C. W. Melcher	463
High-Pressure Steam Boiler, Novel	585
<i>Highways and Highway Transportation</i> —By George R. Chaburn (Book Review)	701
<i>History of Commerce, A</i> (Book Review)—By Clive Day	456
*Hoffman, A. M.—Compressed Air Safeguards the Mariner	567
*Hoffman, A. M.—Simplon Tunnel Finally Completed	384
*Hoist, Pneumatic, Operates Movable Hopper	646
Hoists, Air-Driven, Adaptable to All-Round Service—By A. S. Taylor	439
Holidays the World Over (Editorial)	485
*Hopper, Pneumatic Hoist Operates Movable	646
Horse, Power of	666
*Houk, Ivan E.—Gunite Stops Leaks in a Water-Supply Reservoir	555
<i>How to Think in Business</i> —By Matthew Thompson McClure (Book Review)	729
*Hudson River Vehicular Tunnel—By S. G. Roberts	376
*Hudson River Vehicular Tunnel, 250-ft. Piles for—By Frank W. Skinner and S. G. Roberts	524
*Hudson Vehicular Twin Tubes	496
*"Hustler", Oil-Engine-Driven Towboat—By Edward A. Edwards	715
<i>Hydraulic Principles Governing River and Harbor Construction</i> (Book Review) By Curtis McD. Townsend	468
*Hydro-Electric Development at Pitt River	468
*Hydro-Electric Power Station at Isle Maligne, Canada—By A. A. Bowman, B. Sc.	687

I

Icebergs	483
Ice-Cream Habit in England	710
*Ice-Making and Cold Storage Plant, Vineland, N. J.—By Robert G. Skerrett	693
*Ice-Making at Lancaster Ice Manufacturing Co's. Plant—By Robert G. Skerrett	407
*Ice-Making at Reading Terminal Market—By Sidney Mornington	433
*Ice, Manufactured, Booms Nantucket's Increasing Activities—By Robert G. Skerrett	549
Immigration (Editorial)	454
Imports Increase Despite High Tariff (Editorial)	544
Industrial Machinery Abroad (Editorial)	422
Industrial Record, An	423
Industry Producing More Per Capita, Is? (Editorial)	576
Instructions, Book of	633
<i>Intelligence Measurement</i> —By S. C. Kohs (Book Review)	579
*Interborough Rapid Transit Company—By R. H. Tingley	489
<i>Interviews with Mining Engineers</i> —By T. A. Rickard (Book Review)	579
Inventive Equipment, The (Editorial)	545
Iron, Non-Magnetic	457
Irrigation Project in India, Vast	622

J

*Java Developing Her Water-Power Resources—By Richard H. Tingley	535
Jones, Robert W.—Accidents Under Abnormal Air Pressures	396
Journal of the Iron and Steel Institute—By George C. Lloyd (Book Review)	516

K

*Kent Coal Fields of England—By Roland H. Briggs	507
*Keokuk Dam Across the Path of the Mississippi—By Robert G. Skerrett	367
Kilowatt-Hour, Power in	622

L

*Lathrop, John—Linking the Motor Truck with Trunk Line Railways	475
*Leviathan, America's Queen of the Seas—By Sidney Mornington	617
*Leyner Sharpener Puts Heel Calks on Mule Shoes—By William Wilhelm	474
<i>Library of Engineering Pointers, A</i> —(Book Review) By Power	456
*Limestone Quarries in North Wales	390
*Lindsay, W. R.—Driving an 8,000-foot Tunnel to Speed Up Production of Copper	527
*Liquefiers Constructed by Bureau of Standards—By S. R. Winters	494
*Liquid Air, Laboratory Production of—By S. R. Winters	494
Liquid Air Used to Make Cold Tests of Zinc	628
*Liquid Chlorine Apparatus, Compressed Air For	502
*Liquid Oxygen Explosives in Silver Mines in Mexico—By Robert G. Skerrett	465
*Liquid-Oxygen Explosives—Industrial Use of—By Robert G. Skerrett	427
Liquid Oxygen Explosives no Longer Experimental (Editorial)	454
Locomotive and Car Wheels, Mounting—By P. H. Grant	660
Locomotives, Air-Driven, in German Mines	660
*Lombard, Norman—Mechanically Evaporated Fruits Fast Displacing the Sun-Dried Product	615
Low Temperature Record	421

M

*Mack, F. A.—New Refrigeration Equipment at the Chateau Laurier Hotel	690
<i>Making Letters Pay</i> —By Edward H. Schulze (Book Review)	606
<i>Making of Index Numbers, The</i> —By Irving Fisher (Book Review)	578
<i>Making Your Camera Pay</i> —(Book Review)—By Frederick C. Davis	424
*Mathewson, S. J., Jr.—Pumping Water by Compressed Air in Winnipeg	685
*Maxim, Hiram Percy—Silencing Air Compressor Intakes	411
*McLean, F. A.—Compressed Air Plays Important Part in the Manufacture of Superheaters	698
<i>Mechanical Laboratory Methods</i> —(Book Review)—By Julian C. Smallwood	424
*Melcher, C. W.—Laying a Big High-Pressure Gas Main at Chicago	463
*Melcher, C. W.—Modern Equipment Augments Municipal Water Supply	587
<i>Merchant Marine, The</i> —By Rear-Admiral S. Benson (Book Review)	664
Mercury-Vapor Boilers Prove Practicable (Editorial)	729
<i>Metals and Their Alloys</i> —By Charles Vickers (Book Review)	516
*Meters, Venturi, are Money Savers—By F. Johnstone Taylor	473
*Milling Machine, Compressed Air Applied to the	391
*Mine Haulage in Western Canada—By S. A. Williams	691
Mine Hoists	570
*Mine, Thousand Years Old, Still Being Worked—By Roland H. Briggs	479
Mines, Compressed Air in (Editorial)	515
Mining Publications, New	546
*Mining the Air—By Wilkinson Stark	519
*Mississippi River Power Company's Plant, Keokuk, Ia.—By Robert G. Skerrett	367
<i>Money</i> —By Wm. T. Foster—(Book Review)	729
Montague, James J.—Who Next an Engineer	578
*Moran, C.—Progress in Production of Synthetic Ammonia	599
*Mornington, Sidney—America's Queen of the Seas; The S. S. Leviathan	617
*Mornington, Sidney—Castleton Bridge of New York Central Railroad	401
*Mornington, Sidney—Cold Storage Service in a Modern Municipal Market	433

*Morrington, Sidney—Our Leviathan of the Air: The ZR-1...	647
*Morrington, Sidney—Pneumatic Sweeping Lessens Dangers of Industrial Dust.....	539
Mortar Sprayed in Mines by Compressed Air.....	385
Motion Pictures, Technical Instruction by.....	456
*Motor Truck, Linking with the Trunk-Line Railways—By John Lathrop.....	475
Movie Films, Clean Air Needful to Make.....	378
Muckers Speed Tunnel Work, Mechanical.....	597
*Mundorff, R. F.—Multiple-Service Truck for Road Up-Keep.....	556
*Municipal Water Supply of Elmhurst—By C. W. Melcher....	587

N

*Nantucket's Whaling Industry—By Robert G. Skerrett....	549
Nassau Street Subway.....	586
Natalite.....	585
New Jersey Greensand Marls Rich in Potash.....	472
Newsprint, Record Train of.....	686
Niagara to Help Drive New England.....	560
Nitrogen, Denmark to Manufacture.....	496
Norway Transportation—Railways or Motor Cars (Editorial).....	484
*N. Y. Central Railroad, Castleton Bridge of—By Sidney Morrington.....	401

O

<i>Official Report of the Tenth National Foreign Trade Convention—By Secretary of National Foreign Trade Council.....</i>	701
*Oil-Engine Drive Promotes Ice-Plant Efficiency—By Robert G. Skerrett.....	693
*Oil-Engine-Driven Towboat "Hustler"—By Edward A. Edwards.....	715
Oil Hardening of Steel, Uniformity in.....	417
Oil Refinery an Industrial City.....	588
*Oil Shales and Their Potentialities—By Richard H. Tingley.....	623
*Ore Mine, Thousand Years Old, Still Being Worked—By Roland H. Briggs.....	479
*Oscilloscope, The New Scientific Lantern—By G. H. Dacy.....	488
<i>Oxy Acetylene Welding and Cutting—By P. F. Willis (Book Review).....</i>	486
*Oxygen, Compressed, for Fish in Transit.....	636

P

Padlock Society, The (Editorial).....	393
*Painting and Cleaning by Compressed Air—By Ray E. Velie..	372
*Paint Removed by Compressed Air.....	395
*Paint Versus Cost of Painting—By Howard W. Beach.....	620
Palestine, Electrification of.....	487
*Pangborn New Sand-Blasting Dress.....	464
Paper from Hardwood.....	728
*Paper Making Industry in Canada One of Rapidly Increasing Importance—By S. G. Roberts.....	667
<i>Patents and Trade-Marks—By Messrs. Richards & Geier (Book Review).....</i>	516
Paving Breakers Rush Repair Work.....	656
*Pennsylvania Edison Company's New Transmission Lines—By F. A. Dencer and A. S. Taylor.....	497
*Persons-Arter Automatic Grinder.....	444
Petroleum Producers, Tool Fire Exacts of (Editorial).....	728
*Photographic Films Give Talking Pictures—By Lee de Forest.....	595
*Piles for Ventilating Shaft of Hudson River Vehicular Tunnel—By Frank W. Skinner and S. G. Roberts.....	524
Pin, A Big Factor Industrially.....	575
*Pitt River Power Plant, No. 1.....	467
Platinum Melted in a Glass Tube.....	661
Pneumatic Accelerator, A.....	554
Pneumatic Cylinders to Prevent Airplane Damage.....	532
Pneumatic Dispatch Tube, An Early.....	665
Pneumatic Paving Breakers Rush Repair Work.....	656
*Pneumatic Ram Bales Empty Bags.....	425
Pneumatic Retrieving of Metallic Abrasives.....	566
*Pneumatic Scraper Removes Paint.....	395
*Pneumatic Sweeping Lessens Dangers of Dust—By Sidney Morrington.....	539
*Pneumatic Tools Hasten Building of Electric Transmission Line—By F. A. Dencer and A. S. Taylor.....	497
*Portland Cement Industry, Compressed Air in the—By G. S. Eaton.....	500
Portland Cement, Measuring Fineness of.....	607
<i>Practical Facts About Belting—(Review) Catalog.....</i>	546
<i>Prevention of Vibration and Noise, The—By Alec B. Eason. (Book Review).....</i>	729
Price Cycles (Editorial).....	393
Prophecy and Fulfilment (Editorial).....	605
Pulp Mill to be Built in Canada.....	676

Q

Quarry, Garnet, The World's Greatest—By Robert G. Skerrett.	581
Quarry Job, A Heavy.....	486
*Queensboro Subway Extension—By S. G. Roberts.....	589

R

<i>Railroad Freight Transportation (Book Review)—By L. F. Loree.....</i>	394
Railroads, National, Show Marked Improvement (Editorial).....	728
Railway Brotherhoods as Bankers and Manufacturers (Editorial).....	455
Railways or Motor Cars, Which Shall it Be? (Editorial).....	484
Railways, Tide Has Turned for the (Editorial).....	514
Rain, Black.....	684
Rats' Residences, Attacking The.....	600
*Redinger, D. H.—Progress on the Big Creek Hydro-Electric Project—Part I.....	720
Refrigerating Mine Air.....	588
*Refrigeration and Ice-Making at the Reading Terminal Market—By Sidney Morrington.....	433
*Refrigeration Equipment at the Chateau Laurier Hotel, Ottawa, Ontario—By F. A. Mack.....	690
Rio de Janeiro Harbor Development.....	468
*Rivet Gun, The Compressed Air—By Robert G. Skerrett....	512
Road-Material Survey Aids Highway Contractor.....	538
Roads, Good, Our Widening Network of (Editorial).....	662
*Rock Foundation, Big Excavation for—By Frank W. Skinner.....	451
Roentgen, The Passing of (Editorial).....	484
*Roberts, S. G.—Anchorage Foundation for the Delaware River Bridge.....	557
*Roberts, S. G.—Bettering the Water Supply of a Seaside Resort.....	397
*Roberts, S. G.—Building the Queensboro Subway Extension.....	589
*Roberts, S. G.—Canada's Position in the Paper-Making Industry One of Rapidly Increasing Importance.....	667
*Roberts, S. G.—Piles for Ventilating Shaft of Vehicular Tunnel.....	524
*Roberts, S. G.—Progress on the Hudson River Vehicular Tunnel.....	376
*Roberts, S. G.—Rubber is Manufactured to Suit Many Purposes, How.....	609
*Roberts, S. G.—Shooting Seaplanes from the Deck of a Speeding Ship.....	445
*Roberts, S. G.—Still Improving the Tractive Power of the Steam Locomotive.....	481
*Rubber is Manufactured to Suit Many Purposes—By S. G. Roberts.....	609
Rubber Latex (Editorial).....	455
Rubber, Over-Production of.....	410
Rubber, Pure, Promised by Spraying Process (Editorial)....	544
Rubber Troubles Elastic (Editorial).....	484
Rutgers College Selected for Mining Experiments.....	580

S

Safety Conditions Ignored (Editorial).....	544
*Sagueney River, Electrical Energy from—By A. A. Bowman, B. Sc.....	687
Salmon and Snake Rivers, Power Resources of.....	580
*Salvaging Wholly Submerged Ships by Compressed Air—By Robert G. Skerrett.....	629
<i>Sampling and Analysis of Coal, Coke and By-Products (Book Review) By Carnegie Steel Co.....</i>	456
*Sand Blast Cutting Air-Port Lenses.....	654
*Sand-Blasting Dress, New.....	464
*Sand-Blasting Equipment Employed in Renovating Hotel Sinton.....	598
Sand-Blast Sand, Size of.....	560
Sand Blast without the Sand.....	412
Sand, Device for Drying.....	564
Sandpaper, Waterproof.....	586
San Francisco, City of Bridges (Editorial).....	422
*San Francisco, Grading Busy Street in.....	594
*Schaphorst, W. E.—How Much Power Does a Bearing Absorb?.....	453
Schaphorst, W. F.—Preventable Accidents.....	406
Schweo, Frank C.—Problems of a Purchasing Agent are manifold, The.....	517
<i>Science of Purchasing, The (Book Review) By Helen Hysell..</i>	424
<i>Seaborne Trade—By C. Ernest Fayle (Book Review).....</i>	578
Shandaken Tunnel Bored from End to End.....	432
*Shandaken Tunnel Nearing Completion, The—By A. S. Taylor.....	571
*Shenandoah, Our Leviathan of the Air—By Sidney Morrington.....	647
<i>Shield and Compressed Air Tunneling (Book Review)—By B. H. M. Hewett and S. Johannesson.....</i>	394

Ships, New, Reconditioned Instead of Old Ones (Editorial).....	576
Sidewalks, Moving.....	575
Silk, Artificial.....	534
*Silver, Lead and Zinc Mine in Australia—Part I—By H. H. Carroll and P. H. Warren.....	561
*Silver, Lead and Zinc Mines in Australia—Part II—By H. H. Carroll and P. H. Warren.....	601
*Silver Mines of Pachuca Use Liquid Oxygen—By Robert G. Skerrett.....	465
*Skerrett, Robert G.—Compressed Air Safeguards Aquatic Life.....	529
*Skerrett, Robert G.—Damming the Deerfield to Produce 60,000 Horse-Power.....	639
*Skerrett, Robert G.—Growing Importance of Compressed Air in the Foundry.....	703
*Skerrett, Robert G.—Industrial Use of Liquid-Oxygen Explosives.....	427
*Skerrett, Robert G.—Liquid-Oxygen Explosives in Silver Mines.....	465
*Skerrett, Robert G.—Manufactured Ice Booms Nantucket's Increasing Activities.....	549
*Skerrett, Robert G.—Modernizing the Distilled-Water Ice Plant.....	407
*Skerrett, Robert G.—Oil-Engine Drive Promotes Ice-Plant Efficiency.....	693
*Skerrett, Robert G.—Passing Hot Rivets by Means of a Breath of Air.....	512
*Skerrett, Robert G.—Raising Wholly Submerged Ships by Compressed Air.....	629
*Skerrett, Robert G.—Safeguarding a Dam Against Harmful Ice Pressures.....	367
*Skerrett, Robert G.—World's Greatest Garnet Quarry, The.....	581
*Skinner, Frank W.—Big Excavation for Deep Rock Excavation, A.....	451
*Skinner, Frank W.—Piles for Ventilating Shaft of Vehicular Tunnel.....	524
Slate Mining Underground.....	472
Slate Quarrying Methods Improved.....	719
*Slattery, D. A.—Wrecking Brick Buildings by Pneumatic Tools.....	627
<i>Slide Rule Applied to Commercial Calculations, The</i> (Book Review)—By R. M. Shirby.....	394
Sound Transmission, Mystery of.....	400
*Southern California Edison Company Converting Nature's Falling Waters into Electrical Energy—Part I—By D. H. Redinger.....	720
<i>Special Steels</i> —By Thos. H. Burnham (Book Review).....	606
Spraying Sand and Cement with Cement Gun.....	413
*Spray Painting by Compressed Air—By Ray E. Velie.....	372
Squeezing the Waste Out of Industry (Editorial).....	422
*Stark, Wilkinson—Mining the Air.....	519
Steam-Driven Compressors, New Bulletin on.....	636
Steam, High-Pressure.....	506
Steam Locomotive, Still Improving the Tractive Power of—By S. G. Roberts.....	481
Steam Power at Times the Cheaper Power.....	646
Steel, In America, Earliest Production of.....	580
Steel Pen.....	371
<i>Stimulating the Organization</i> —By Orlin D. Foster (Book Review).....	606
*St. John Seeking Preeminence as a Winter Port—By H. G. Evans.....	677
St. Lawrence, Keeping Open in Winter (Editorial).....	701
*Stone Mountain, Carving the Great Confederate Memorial on the Face of—By Vernon H. VanDiver.....	651
Submarine Drill in Important Channel Work, The (Editorial).....	422
Sugar Dust Explosions.....	502
*Sulphur Mining, Compressed Air in—By Cloyd M. Chapman.....	645
*Superheaters, Compressed Air in the Manufacture of—By F. A. McLean.....	698
<i>Symbol of Safety, A</i> —By Harry C. Brearley (Book Review).....	606
*Synthetic Ammonia, Progress in Production of—By C. Moran.....	599

T

*Tablets, Taking Moisture from the Air to Make.....	600
<i>Talking Machine Industry, The</i> —By Ogilvie Mitchell (Book Review).....	486
*Talking Pictures—By Lee de Forest.....	595
Tariff, Burden of the (Editorial).....	423
Tariff Law, Picking Flaws in (Editorial).....	392
*Taylor, A. S.—Air-Driven Hoists Adaptable to All-Round Service.....	439
*Taylor, A. S.—Animal Life in America 10,000,000 Years Ago.....	674
*Taylor, A. S.—Pneumatic Tools Hasten Building of Electric Transmission Line.....	497
*Taylor, A. S.—Savings Made Possible by Efficient Service in the Field.....	655

*Taylor, A. S.—Shandaken Tunnel Nearing Completion.....	571
*Taylor, A. S. and Wilkers, J. Hanley—Status of Work on the Delaware River Bridge.....	386
*Taylor, F. Johnstone—Compressed Air Meters are Money Savers.....	473
*Telephone Directory That Revolves.....	566
Ten-Thousand Dollar Man (Editorial).....	544
<i>Text Book of Radio, The</i> —By Chas. Wm. Taussig, (Book Review).....	516
*Thermos Bottle as a Monument, The (Editorial).....	514
Thinking (Editorial).....	423
Tidal Power Installation in France.....	450
*Tietzort, Francis J.—Compressed Air and Concrete Save Old English Cathedral.....	533
Tin-Hat Fills a Place in Industry, The.....	622
*Tingley, Richard H.—Compressed Air's Part in Municipal Rapid Transit.....	489
*Tingley, Richard Hoadley—Diamond Industry, The.....	459
*Tingley, Richard H.—Fine Work Done in Restoring Trainshed Damaged by Fire.....	725
*Tingley, Richard H.—Java Developing Her Water-Power Resources.....	535
*Tingley, Richard Hoadley—Oil Shales and Their Potentialities.....	623
Tractors Lubricated by Compressed Air.....	442
Tractor Versus Horses for Towing.....	628
Transatlantic Cables (Editorial).....	662
*Transmission Line, Electric, Pneumatic Tools Hasten Building of—By F. A. Dencer and A. S. Taylor.....	497
*Truck, Multiple Service, for Road Up-Keep—By R. F. Munderhoff.....	556
*Truck with Air Brakes.....	404
*Trunk-Line Railways, Linking the Motor Truck with—By John Lathrop.....	475
Tunnel, Arthur's Pass, at New Zealand.....	442
*Tunnel, Engels Copper Mining Company—By W. R. Lindsay.....	527
Tunnel, Shandaken, Bored from End to End.....	432
*Tunnel, Shandaken, Nearing Completion—By A. S. Taylor.....	571
*Tunnel, Simplon, Finally Completed—By A. M. Hoffman.....	384
*Tunnel, 250-ft. Piles for Hudson River Vehicular—By Frank W. Skinner and S. G. Roberts.....	524
Tunnel Record.....	487
Tunnel, Tiefe Georg, Saxony.....	375
*Tunnel, Vehicular, Progress on the—By S. G. Roberts.....	376
Turntable, An Overhead Locomotive.....	487
Industry, Twelve-Hour Shift in (Book Review).....	486
Typewriter, Half Century of (Editorial).....	605

U

<i>Ultraviolet Radiation</i> —By M. Luckiesh (Book Review)	664
Unique Go-Devil	627
United States is an Industrial Country, The (Editorial)	663

V

*Vacuum Pumps, New Line of Small.....	727
*VanDiver, Vernon H.—Carving the Great Confederate Memorial on the Face of Stone Mountain.....	651
Vapor-Tight Tanks Prevent Evaporation Losses.....	575
Varnish, New, Proof Against Heat and Cold.....	603
*Vehicular Tunnel, Progress on the—By S. G. Roberts.....	376
*Velie, Ray E.—Painting and Cleaning by Compressed Air.....	372
*Virginia Railway Electrifies 203 Miles of Track.....	608

W

Wages and Purchasing Power (Editorial).....	393
*Warren, P. H. Great Broken Hill Mines in Australia, The Part I.....	561
*Warren, P. H.—Great Broken Hill Mines in Australia— Part II.....	601
Waste, Eliminate in Industry (Editorial).....	662
*Weiss, Philip, Passes on (Obituary).....	622
Welding a Big Gas Holder.....	580
Welding Long Pipe Lines.....	579
*Weston, T. I.—Granite Quarrying and Crushing Operation ..	379
<i>Who's Who in Engineering</i> —By John William Leonard (Book Review).....	546
<i>Why Manufacturers Lose Money</i> (Book Review)—By Robert Grimshaw.....	394
*Wilhelm, William—Leyner Sharpener Puts Heel Calks on Mule Shoes.....	474
*Wilkens, J. Hanley and Taylor, A. S.—Status of Work on the Delaware River Bridge.....	386

*Williams, S. A.—Compressed Air Haulage in the Coal Mines of Western Canada.....	691	*Workshop, Mobile, Speeds Drill Sharpening.....	666
*Winters, S. R.—Laboratory Production of Liquid Air.....	494	*Wrecking Brick Buildings by Pneumatic Tools—By D. A. Slattery.....	627
*Winters, S. R.—Novel Flume Built in Mountainous Region.	405		
*Winters, S. R.—Patching the World's Highest Dam by Compressed Air.....	511		
*Winnipeg's Air-Lift System—By S. J. Mathewson, Jr.....	685		
Wool Cleaning and Disinfecting Plant, Automatic.....	421		
Wool, Moth-Proof (Editorial).....	545		

Z

ZR-1 America's Giant Dirigible.....	472
*ZR-1, Our Leviathan of the Air—By Sidney Mornington....	647

January.....	Pages 367—396 inclusive
February.....	Pages 397—425 inclusive
March.....	Pages 427—457 inclusive
April.....	Pages 459—488 inclusive
May.....	Pages 489—518 inclusive
June.....	Pages 519—548 inclusive
July.....	Pages 549—580 inclusive
August.....	Pages 581—608 inclusive
September.....	Pages 609—638 inclusive
October.....	Pages 639—666 inclusive
November.....	Pages 667—702 inclusive
December.....	Pages 703—730 inclusive